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ABSTRACT

This action research study by a team of Finnish teachers and students training to be caregivers (practical nurses, secondary education) examined the curriculum development process, involving student participation. The research included Delphi and pedagogical development methods. Delphi was implemented in two phases. In the first round 16, and in the second round 81, caregivers and representatives of caregiving, teaching, and teaching administration were chosen. The first round involved interviews, and the second round involved questionnaires. Respondents expressed their opinions on the theme areas, and statements were formulated on a five-point Likert scale. Models for entrepreneurship and use of high-tech were developed based on the Delphi findings and evaluated in 2000. Respondents had a unanimous vision for the future regarding caregiving services and entrepreneurship. Many different views on the content of entrepreneurship emerged from the interviews. Four adult students conducted a market survey and presentation of caregiving entrepreneurship halfway through their studies at a trade fair for enterprise. Three student groups interviewed people at the place where they were doing their practical training, examining the development of high tech and entrepreneurship. There was considerable variation in the attitudes of workers toward technology. (SM)

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Students as developers of the curriculum: Case High Tech and the care-giving enterprise in the training of caregivers

1. Introduction

In the curricular-making process students are generally cast in the role of objects of planning and teaching. In this case study in a Finnish institution in the field of care-giving we describe curriculum development which is participatory and oriented to working life.

The need for development gives rise to the generalisation of high tech and entrepreneurship in care (Arno & Bonuck 1994; Kaye & Davitt 1995).

Nordic social and health care is based on the financing of public services and on institutional care. In the 1990s the share of private care-giving services has doubled in Finland. Nevertheless, the founder of an enterprise is frequently the first in his/her field, a pioneer, and the notion of the care-giving enterprise is novel. The field of health care is female-dominated, yet there is no trace of women in the history of the development of the technology (Durack 1997).

2. Materials and Methods

The action research is being carried out by a team of teachers and groups of Finnish students training as caregivers (practical nurses, secondary education). The research comprises delphi and pedagogical development work. Delphi is an expert method also used by Parker, Ninomiya and Cogan (1999) in curricular development. It is a means of seeking unanimity in the future. The purpose of the Delphi research was to create a vision of the future development of technology and entrepreneurship in order to advance models of study counselling. The team of teachers is responsible for project management and delphi. The students are taking as much part as possible in the pedagogical development work.

Delphi was implemented in two phases. In the first round we deliberately selected 16 and in the second round 81 entrepreneurs in the field of care-giving and also representatives of public care-giving, teaching and teaching administration in this field, right up to ministerial level. The first iteration round was accomplished through qualitative theme interviews during the turn of the year 1999-2000. The second Delphi iteration round was accomplished in the form of informed questionnaires. Respondents expressed their opinions on the theme areas and statements were formulated on a 5-point Likert scale.

The models for entrepreneurship and use of high-tech were developed on the basis of the Delphi findings and evaluated in the year 2000. Each student and teacher who had been involved in the development of a model evaluated it and the implementation in writing and in a common group discussion. The findings are integrated to the curriculum of our college, developed further and disseminated elsewhere in seminars.

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3.1. The future picture of technology in the care-giving field and entrepreneurship

The respondents achieved unanimity of the future vision in the second round:

The share of private care-giving services among all care-giving services will increase, and the attitudes of municipal decision-makers and officials will become more positive. In the future ageing of the population and urbanisation will increase the demand for private care-giving services. The use made of technology will increase in the private care-giving sector. Respondents were unable to commit themselves regarding the effects of increase use of IT on the need for personnel, and in the interviews it was dealt with as a threat of the disappearance of the humane element. On average the respondents could not express an opinion on women's equality and operating as an entrepreneur or then they were cautiously positive. The teachers had a more positive conception of the chances for women to work as entrepreneurs than had the entrepreneurs themselves. It was believed that the training in entrepreneurship offered at the educational institution would have an effect on subsequent desire to embark on enterprise. All the respondents agreed that the entrepreneurial training should be carried out in close co-operation with entrepreneurs, and it was thought that the entrepreneurs were desirous of this. The teaching offered should be developed in a direction which serves also operational entrepreneurs better. Teaching in entrepreneurship should stress students' mode of working in which they carry the responsibility. The respondents produced a extremely consistent picture of the need for content of entrepreneurial activity. Internal entrepreneurship is more necessary than the teaching of various contents of entrepreneurship (book-keeping, marketing etc.) both at the beginning of studies and in the final stages. Only IT is as necessary as the sub-factors of internal entrepreneurship.

3.2 Pedagogical models

What is entrepreneurship, how can it be taught and evaluated?

A great number of views on the content of entrepreneurship emerged from the interview data. A qualitative theme analysis was made of these. Content of entrepreneurship comprises:

- presentation and interaction skills
- customer service
- co-operation and groupwork skills
- consideration and appreciation of others
- flexibility and adaptability
- creative thinking
- problem solving ability
- initiative and independence
- being persistent and persevering
- being goal-oriented
- regularity and punctuality
- being economical

The sub-factors of the concept were made into a 360-assessment measurement instrument of the evaluation of entrepreneurship. Each part of a concept was marked with its own sector of the circle and the lines radiating from the circle were divided into scales from 1 to 5. The evaluation was done by each student him/herself, peers, and a teacher. Altogether 41 nursing students took part in this and did the evaluation in the beginning of their studies and in the middle of the first term.

The students found the evaluation useful and quite clear. The 360-assessment measurement instrument yields a clear content for entrepreneurship training which emanates from the reality of enterprise. It

can be integrated into natural work. Later on also representatives of working life will take part in the evaluation. Entrepreneurship training is goal-oriented and its productivity can be monitored by sub-area.

The panel of entrepreneurs

The group of young students initially took a positive and unprejudiced attitude to the notion. The group mostly managed the allotted task on the guidance provided. Nevertheless the students felt that some of the issues emerging in the panel were even difficult to grasp, and "There was so much knowledge that you head could hardly take it." The greatest contribution of the panel was a realistic, positive and human picture of the entrepreneur. This picture was that care-giving entrepreneurs are people who are committed to the values and vocation of the field, that entrepreneurship means hard work, is not suitable for the newly qualified and that the entrepreneur is not superhuman. The students felt that in the panel they had learned a great deal more about entrepreneurship than in conventional lessons about entrepreneurship in the field of care-giving. The entrepreneurs believed that the panel had given them, too, an opportunity to exchange experiences among themselves, as the entrepreneur otherwise operates largely alone.

Market survey

Four adult students carried out a market survey and presentation of care-giving entrepreneurship halfway through their studies at a stand at a trade fair for enterprise in general. The contribution of the teachers was kept to a minimum, especially when dealing with customers and in implementing the questionnaire, although the teacher was indeed physically present throughout. The results of the questionnaire were encouraging regarding entrepreneurship. The adult students still felt unsure and insufficiently informed in the situation. In the course of time attitudes changed and the students brought forward the incidental matters which had caused uncertainty and came the better to understand the significance of the trade fair questionnaire as a part of their studies. However, they retained the impression that care-giving entrepreneurship is a very demanding matter.

Interviews

The task of interviewing three people at the place where they were doing their practical training and of analysing the findings was assigned to three student groups nearing the end of their studies as a part of their routine practical training. The questions in the interviews addressed the development of high tech and entrepreneurship. The task was completed by most of the students as the representatives at three of the places where there were student trainees had no time to respond.

There was considerable variation in the attitudes to technology among the workers interviewed. Two of these places (the casualty division of a hospital and the nursing in the home through a health centre) exemplified the adoption of sophisticated technology and positive attitude among nurses to technology. As regards learning about it there were two generations: The younger and better educated people had learned about technology, while the older and less educated personnel has avoided it an evinced haste and their lower positions. At other places where the students were doing their practical training (a day-care centre, a rehabilitation centre for mental health patients and people with senile dementia, a psychiatric hospital) the workers used very little technology and the nurses were actually opposed to it. The responses of the nurses concentrated on contemplating the superfluity of technology in their type of nursing and whether the advent of technology would make the work more mechanical and

reduce the amount of time spent with the patients. The students completed the assignment meticulously, acquitted themselves better than they had initially supposed and assessed it from many perspectives. They felt that the assignment had propelled them in the direction of a relevant understanding of technology as a part of nursing and that it had encouraged them to follow the technological development after they had completed their studies.

4. Conclusions

When students who had been taught only a little participate in the research project there are many open questions, but the great value of the research is in the participation of the students in the anticipation of their own future and their growth to comprehend research. Motivation among students may not be taken for granted if the research project does not benefit them in the form of grades and points (cf. Miller et al 2000). The interest of the Finnish students in the subject and the project appeared relatively good, although the responsibility for taking matters as far as curricular change rests with the teachers. Now it is important to integrate the models experienced into the future curriculum and disseminate them for experimentation in other institutions.

In the workplaces and educational institutions in Finland we are going through a technological transition and the emergence of new entrepreneurial activity. Bringing students face to face with the new age is always done case by case and the student may well be in the position of a pioneer. The educational institutions must ensure shared reflection on what has been experienced so that the image of entrepreneurship and the use and benefits of high technology becomes realistic and encouraging.

Not everyone is meant for enterprise, nor is there room for everyone to engage in it. It is important to provide a realistic idea of being an entrepreneur and of the personal nature of entrepreneurial training so that the demanding nature of the field and the ethical responsibility are correctly understood (cf. Hyrsky 1999). Internal entrepreneurship and a positive, human appreciation of enterprise are more important (Ruohotie & Koiranen 2000). Students may enter education for care-giving direct from comprehensive school at the age of 16. A young, newly qualified caregiver can hardly set up in business, but attitudes should nevertheless be moulded at this early stage.

The attitudes of the young students to the demanding nature of enterprise in the field of care-giving appeared to be less prejudiced than it was among older people. This may in part be due to the more even gender distribution in the younger group and to the obvious gender equality. The significance of gender appeared less than had been anticipated. Has equality been achieved, or is the issue only suppressed because the great majority of workers in the field of care-giving are women? The positive impression of representatives of management and teaching may equally be correct or indicate that they do now know the realities of female entrepreneurs.

For students to mature into entrepreneurs there must be all manner of interaction with real entrepreneurs throughout their education. This enhances the credibility of entrepreneurial training. Peer learning with the participation of employers from the public sector changes the culture and provides motivation for long-term co-operation.

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Evaluation of entrepreneurship

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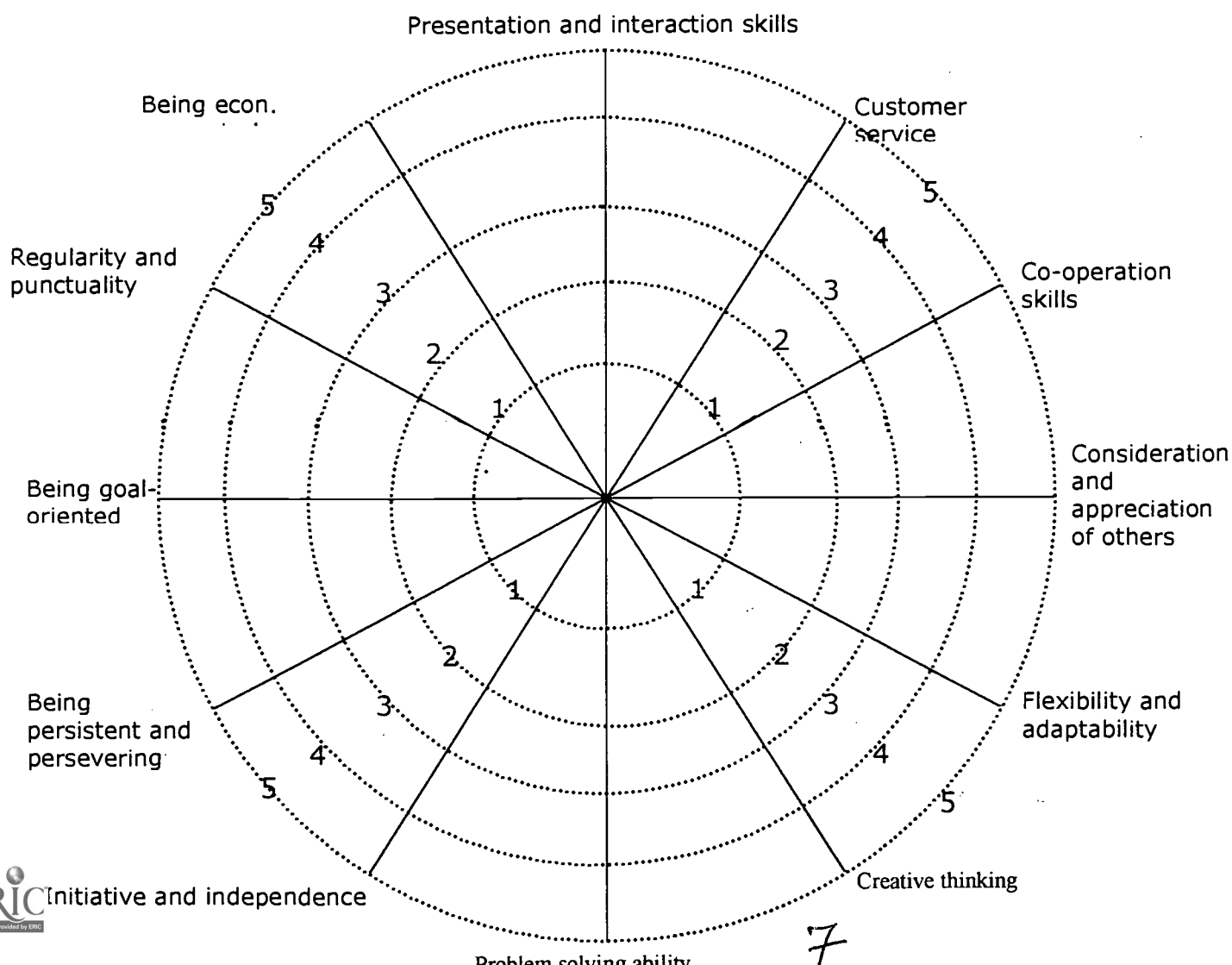
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